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EXAMINER	
GWARTNEY, ELIZABETH A	
ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/552,460	SARDO, ALBERTO	
	Examiner	Art Unit	
	Elizabeth Gwartney	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *20051007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 4-12 and 16-38 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Appropriate correction is required. In the interest of compact prosecution the claims will be interpreted as being properly dependent.

2. Claims 12 and 25 are objected to because a claim should not refer to two sets of claims with two different features. Accordingly the claim has not been further treated on the merits. Appropriate correction is required.

Claim Rejections - 35 USC § 112/ 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-11, 13-24, 26 and 35-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 13-24, the phrase "compositions" renders the claim indefinite because it is unclear how many compositions are being claimed. Does the applicant mean "A composition"?

Regarding claim 6, the phrase "lecithins and/or derivatives" renders the claim indefinite because there is only a limitation for lecithin derivatives not lecithin.

Regarding claim 22, it is unclear whether the composition includes between 5% and 15% lysolecithins and/or derivatives ***in addition*** to the 10% to 40% lecithins and/or derivatives or ***as part of*** the 10% to 40% lecithins and/or derivatives.

Regarding claims 23-24, the recitation "in that the ratio of lecithins and/or derivatives relative to the treatment agent is from 0.3 to 3 [0.5 to 1.5]" renders the claim indefinite. It is unclear if applicant means that the ratio of lecithin is 0.3:3 or a range of ratios including 1:3 to 3:1 [0.5:1.5 and 1:2 to 1.5:1].

Regarding claim 35, the recitation "use of one or more treatment agents as a preservative for the lecithins and/or derivatives" renders the claim indefinite. Does the applicant mean that the treatment agents are preservatives in a composition including lecithins and/or derivatives?

Claims 1-11 provide for the use of lecithin and/or derivatives, claim 26 provides for the use of a composition, and claims 35-38 provide for the use of one or more treatment agents, but, since the claims do not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 1-11, 26 and 35-38 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd.* v. *Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-4, 6-11, and 35-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Mulder (US 3,451,826).

Regarding claims 1-3, 10-11 and 35-36, Mulder discloses a method of coating fruit and vegetables with lecithin (C1/Abstract).

The recitation that said lecithins and/or derivatives are used to reduce the phytotoxicity of the physical and/or chemical treatments does confer patentability to the claim since statements in the preamble reciting the purpose or intended use of the claimed invention which do not result in a manipulative difference between the claimed invention and the prior art do not limit the claim and do not distinguish over the prior art process. See, e.g., *In re Otto*, 312 F.2d 937, 938, 136 USPQ 458, 459 (CCPA 1963); *In re Sinex*, 309 F.2d 488, 492, 135 USPQ 302, 305 (CCPA 1962). If a prior art structure is capable of performing the intended use as recited in the preamble, then it meets the claim. See, e.g., *In re Schreiber*, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997) and cases cited therein, as it has been held that the recitation of a new intended use for an old product does not make a claim to that old product patentable. *In re Schreiber*, 44 USPQ2d 1429 (Fed. Cir. 1997). See also MPEP § 2111.02 and § 2112 - § 2112.02.

Regarding claim 4, Mulder discloses all of the claim limitations as set forth above. Mulder also discloses that a portion of the lecithin is subjected for a short time to hydrolysis with an alkali (C2/L20-23). Since Mulder discloses hydrolyzing lecithin and lysolecithin is a product of lecithin hydrolysis, it clear that the lecithin composition would contain lysolecithin.

Regarding claim 6, Mulder discloses all of the claim limitations as set forth above. Since Mulder discloses lecithin, the limitations of this claim have been met.

Regarding claim 7, Mulder discloses all of the claim limitations as set forth above. Mulder also discloses that other substances, such as fungicides and/or bactericides can be added to the lecithin composition (C5/L1-3). Given that the emulsion is used to coat fruit and vegetables (C1/L26-27), since Mulder discloses adding chemical treatments to the emulsions, the lecithin and chemical treatment are applied simultaneously.

Regarding claim 8, Mulder discloses all of the claim limitations as set forth above. Further, Mulder discloses that the lecithin is formulated in an aqueous solution, then diluted in an aqueous dispersion before treatment (C2/L32-49).

Regarding claim 9, Mulder discloses all of the claim limitations as set forth above. Mulder discloses that the lecithin is applied as a 0.4% solution (C4/L55-57).

Regarding claims 35-36, Mulder discloses all of the claim limitations as set forth above. Mulder et al. also disclose a method of treating fruits and vegetables with a preservative that has bactericidal or fungicidal properties (C5/L1-3).

8. Claims 13-17, 23-24, 26-27, 30-31, 33 and 35-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Garcia-Mina et al. (EP 1 106 070 A2).

Regarding claim 13 and 26, Garcia-Mina et al. disclose a composition containing an active ingredient, a secondary active ingredient and a surface active including lecithin for controlling post-harvest pathology of fruits and vegetables ([0001], [0016], and [[0019]).

Regarding claim 14, Garcia-Mina et al. disclose all of the claim limitations as set forth above and that the treatment agents and lecithin are formulated to be administered simultaneously ([0019]).

Regarding claims 15-17, Garcia-Mina et al. disclose all of the claim limitations as set forth above. Garcia-Mina et al. also disclose that the active agents are selected from eugenol, terpineol, and geraniol (Abstract).

Regarding claims 23-24, modified Garcia-Mina et al. disclose all of the claim limitations as set forth above. Further, Garcia-Mina et al. disclose a composition with 20-35% lecithin (i.e. surface active complex including lecithin), 15% eugenol, and 50% total treatment agents (i.e. thymol, eugenol and cinnamaldehyde) ([0019]/L5-10, [0035]/Disease control test, [0042]/Test of disease and scalding control).

Regarding claims 27 and 30-31, Garcia-Mina et al. disclose all of the claim limitations as set forth above. Garcia-Mina et al. also disclose a method for treating fruit and vegetables comprising immersing, bathing or showering fruit and vegetables in a eugenol and lecithin composition (Abstract, [0019],[0035]-[0037], [0042]). Garcia-Mina et al. also disclose use of the composition post-harvest ([0016]/L37).

Regarding claim 33, Garcia-Mina et al. disclose all of the claim limitations as set forth above. Garcia-Mina et al. also disclose a method for treating fruit and vegetables comprising the bathing the fruits and vegetables in a 45 to 50°C bath of the composition for 50 seconds ([0032]).

Regarding claims 35-37, Garcia-Mina et al. disclose a composition for controlling post-harvest pathologies (i.e. pathogens and chemical degeneration) on fruits and vegetables including eugenol and lecithin ([0001], [0035], [0042]).

Regarding claim 38, Garcia-Mina et al. disclose all of the claim limitations as set forth above. Garcia-Mina et al. also discloses that the treatment agent represents from 42% by weight of the lecithin (see eugenol at 15% and surface-active complex at 35% - [0042]).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mulder (US 3,451, 826).

Regarding claim 5, while Mulder discloses that only a portion of the lecithin is hydrolyzed, the reference does not explicitly disclose that the lecithin composition contains between 30% and 60% of lysolecithin. As emulsion stability is a variable that can be modified, among others, by adjusting the lysolecithin content, the precise amount of lysolecithin in the lecithin composition would have been considered a result effective variable by one having ordinary skill in the art at the time the invention was made. As such, without showing unexpected results, the claimed lysolecithin content cannot be considered critical. Accordingly, one of ordinary skill in the art at the time the invention was made would have optimized, by routine experimentation, the lysolecithin content in the lecithin composition of Mulder to obtain the desired emulsion stability (In re Boesch, 617 F.2d. 272, 205 USPQ 215 (CCPA 1980)), since it has been held that where the general conditions of the claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. (In re Aller, 105 USPQ 223).

13. Claims 18-21 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garcia-Mina et al. (EP 1 106 070 A2) in view of Schur (US 6,514,551).

Regarding claims 18-21, Garcia-Mina et al. disclose all of the claim limitations as set forth above. While Garcia-Mina et al. disclose diluting the composition with 10 or 25% water ([0032], [0035], [0042]), the reference does not explicitly disclose that the composition is dissolved or diluted in between 10% and 70% or between 30% to 60% vegetable oil.

Schur teaches a composition for impacting the surface of microbially perishable products comprising a preservative possessing bacteijostatic and/or fungistatic activity and lecithin, diluted in vegetable oil (C2/L14-19, 53-54, C6/L3-6).

Garcia-Mina et al. and Schur are combinable because they are concerned with the same field of endeavor, namely, stabilization of microbially perishable products. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used vegetable oil, as taught by Schur, to dilute the composition of Garcia-Mina et al. because doing so would amount to nothing more than the use of a known food grade dilutant for its intended use in a known environment to accomplish entirely expected results.

As fluidity and ease of application are variables that can modified, among others, by adjusting the among of vegetable oil base, the precise coating vegetable oil content would have been considered a result effective variable by one having ordinary skill in the art at the time the invention was made. As such, without showing unexpected results, the claimed amount of vegetable oil cannot be considered critical. Accordingly, one of ordinary skill in the art at the time the invention was made would have optimized, by routine experimentation, the amount of vegetable oil in the composition of modified Garcia-Mina et al. to obtain the desired fluidity and application efficiency (In re Boesch, 617 F.2d. 272, 205 USPQ 215 (CCPA 1980)), since it has been held that where the general conditions of the claim are disclosed in the prior art,

discovering the optimum or workable ranges involves only routine skill in the art. (In re Aller, 105 USPQ 223).

Regarding claim 34, modified Garcia-Mina et al. disclose all of the claim limitations as set forth above. While Garcia-Mina et al. disclose mixing the lecithin and eugenol together at the same time ([0031]), the reference does not explicitly disclose adding the lecithin to the oil followed by the addition of the treatment agent. To switch the order of performing process steps, i.e. the order of the addition of the ingredients into the final composition, would be obvious absent any clear and convincing evidence and/or arguments to the contrary (MPEP 2144.04 [R-1]). "Selection of any order of performing process steps is prima facie obvious in the absence of new or unexpected results".

14. Claims 22, 28-29 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garcia-Mina et al. (EP 1 106 070 A2).

Regarding claim 22, Garcia-Mina et al. disclose all of the claim limitations as set forth above but Garcia-Mina et al. does not disclose that the lecithin contains between 5% and 15% lysolecithin. A skilled artisan would know that the hydrolyzed form of lecithin, lysolecithin, has superior emulsification properties to lecithin. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have replaced a portion, including 5% to 15% of the lecithin in the composition of modified Garcia-Mina et al. with lysolecithin for the purpose of making a more stable emulsion with the treatment agent ingredient.

Regarding claims 28-29, Garcia-Mina et al. disclose all of the claim limitations as set forth above. While Garcia-Mina et al. disclose that the composition is diluted and applied to

fruits and vegetables at a temperature of between 45 to 50°C the reference does not explicitly disclose that the composition is diluted in water at a ratio of from 1 to 20 l/m^3. As fluidity is a variable that can be modified, among others, by adjusting the dilution ratio of the composition, the precise dilution ratio would have been considered a result effective variable by one having ordinary skill in the art at the time the invention was made. As such, without showing unexpected results, the claimed dilution ratio cannot be considered critical. Accordingly, one of ordinary skill in the art at the time the invention was made would have optimized, by routine experimentation, the dilution ratio of the Garcia-Mina et al. composition to obtain the desired balance between fluidity and efficacy of the treatment composition (In re Boesch, 617 F.2d. 272, 205 USPQ 215 (CCPA 1980)), since it has been held that where the general conditions of the claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. (In re Aller, 105 USPQ 223).

Regarding claim 32, Garcia-Mina et al. disclose all of the claim limitations as set forth above but the reference does not disclose that the application of the composition is carried out before harvesting by means of spraying. Given that Garcia-Mina et al. disclose that the composition can be applied by spraying [0019] and since that the composition is used to control post-harvest pathologies, it would have been obvious to a skilled artisan to have applied the composition to the fruit at any time prior to distribution and achieve the same benefits.

15. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mulder (US 3,451,826) in view of Garcia-Mina et al. (EP 1 106 070 A2).

Regarding claim 37, Mulder discloses all of the claim limitations as set forth above but the reference does not disclose that the treatment agent is eugenol.

Garcia-Mina et al. teach the use of eugenol to control post-harvest pathologies on fruit and vegetables (Abstract, [0021]). Garcia-Mina et al. teach that eugenol is a eco-compatible ingredient that does not have any risk for human health ([0017]).

Mulder and Garcia-Mina et al. are combinable because they are concerned with the same field of endeavor, namely, methods for preserving fruits and vegetables. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used eugenol, as taught by Garcia-Mina et al. as the treatment agent in the composition of Mulder for the purpose of using a eco-compatible ingredient that does not have any risk for human health.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Glass et al. (US 4,604,288) teach a method of preparing a chewing gum comprising lecithin and liquid flavoring but does not teach a composition for fruit and vegetables.
- Lecifruit NV (NL 132 984 C) teaches a method of coating fruits and vegetables with lecithin identical that that taught by Mulder (US 3,451,826).
- Bompeix et al. (WO 00/32054) teach a method to prevent germination in bulbs and tubers by treating with a composition comprising an active ingredient selected among eugenol, a sugenol salt, isoeugenol, and an isoeugenol salt. Bompeix et al. does not

teach a composition comprising lecithin that is used as a fungicides, bactericides, or antioxidant.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Gwartney whose telephone number is (571) 270-3874. The examiner can normally be reached on Monday - Thursday;7:30AM - 5:00PM EST, working alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on (571) 272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/E. G./
Examiner, Art Unit 1794

/Callie E. Shosho/
Supervisory Patent Examiner, Art Unit 1794